

# STRIDE® SE3 SERIES INDUSTRIAL UNMANAGED ETHERNET SWITCHES



RoHS Compliant



**NOTE: DOWNLOAD USER MANUAL SE3-USER-M FROM THE PRODUCT MANUALS AREA OF AUTOMATIONDIRECT.COM FOR ADDITIONAL DETAILS.**

1-800-633-0405

www.AutomationDirect.com

Stride SE3 Unmanaged Models					
Part Number	RJ45 10/100	RJ45 GbE	Fiber	Input Power (Max.)	Operating Temperature
SE3-SW5U	5	-	-	1.2 W	-10 to +65°C [14 to 149°F]
SE3-SW5U-T	5	-	-	1.2 W	-40 to +75°C [-40 to 167°F]
SE3-SW8U	8	-	-	2.2 W	-10 to +65°C [14 to 149°F]
SE3-SW8U-T	8	-	-	2.2 W	-40 to +75°C [-40 to 167°F]
SE3-SW5UG-T	-	5	-	6.6 W	-40 to +75°C [-40 to 167°F]
SE3-SW8UG-T	-	8	-	9.2 W	
SE3-SW5U-1C1-T	4	-	1 SC	5W	
SE3-SW5U-1T1-T	4	-	1 ST	5W	
SE3-SW6U-2C1-T	4	-	2 SC	6W	
SE3-SW6U-2T1-T	4	-	2 ST	6W	
SE3-SW7U-2P-T	5	-	2 SFP*	8W	
SE3-SW5UG-1P-T	-	4	1 SFP*	5.6 W	
SE3-SW10UG-2P-T	-	8	2 SFP*	12W	
SE3-SW16UG-4P-T	-	12	4 SFP*	15.4 W	

\* Optional SFP modules sold separately.

Power Details	
Power Input	Redundant input terminals, removable terminal block
Input Voltage	Class 2 power supply: 12-48 VDC
Reverse Power Protection	Yes
Power Consumption	Refer to Models table
Relay Contact	24VDC, 1A resistive, open on fault (not present on SE3-SW5U, SE3-SW5U-T)

RJ45 Ports	
Ethernet Compliance	IEEE 802.3i, 802.3u, 802.3x for 10/100 Ethernet IEEE 802.3ab for Gigabit Ethernet
Auto-Crossover	Yes, allows you to use straight-through or crossover wired cables
Auto-Sensing Operation	Yes, full and half duplex
Auto-Negotiating Speed	Yes
Flow Control	IEEE 802.3x flow control, back pressure flow control
Cable Requirements	10BaseT: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100BaseTX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m) 1000BaseTX: UTP/STP Cat.5/5E cable; EIA/TIA-568 100-ohm (100m)
Max. Cable Distance	100m [328ft]

SFP Ports	
Ethernet Compliance	IEEE 802.3, 802.3u, 802.3x for 10/100 Ethernet IEEE 802.3ab, 802.3z for Gigabit Ethernet
SFP (pluggable) ports accept 100/1000 Mbps Mini-GBIC (SFP) transceivers. See SFP module datasheet for optional fiber transceiver specifications	

General Specifications		
Processing Type	Store and forward	
Devices Supported	All IEEE 802.3 compliant devices are supported	
MAC Addresses	1K	SE3-SW5U, SE3-SW5U-T, SE3-SW8U, SE3-SW8U-T
	8K	SE3-SW5UG-T, SE3-SW8UG-T, SE3-SW7U-2P-T, SE3-SW5UG-1P-T, SE3-SW10UG-2P-T, SE3-SW16UG-4P-T
	2K	SE3-SW5U-1C1-T, SE3-SW5U-1T1-T, SE3-SW6U-2C1-T, SE3-SW6U-2T1-T
Memory Buffer	448Kbits	SE3-SW5U, SE3-SW5U-T, SE3-SW8U, SE3-SW8U-T, SE3-SW5U-1C1-T, SE3-SW5U-1T1-T, SE3-SW6U-2C1-T, SE3-SW6U-2T1-T
	1Mbit	SE3-SW5UG-T, SE3-SW5UG-1P-T
	4Mbits	SE3-SW8UG-T, SE3-SW7U-2P-T, SE3-SW10UG-2P-T, SE3-SW16UG-4P-T
Packet Forwarding Rate	14,888 Kpps for Ethernet ports 148.8 Kpps for Fast Ethernet ports 14,888 Kpps for Gigabit Ethernet ports	
Jumbo Frame Support	9.6 Kbytes	SE3-SW8UG-T, SE3-SW7U-2P-T, SE3-SW10UG-2P-T, SE3-SW16UG-4P-T
	10Kbytes	SE3-SW5UG-T, SE3-SW5UG-1P-T
Storage Temperature Range	-40 to +85 °C (-40 to +185 °F)	
Humidity (Non-Condensing)	5 to 95% RH	
Environmental Air	No corrosive gases permitted	
Vibration, Shock & Freefall	IEC60068-2-6, -27, -32	
EMI Emissions	FCC Part 15 Subpart B Class A, CE EN55032/EN61000-6-4 Class A	
EMS	CE EN55035/EN61000-6-2 Class A; IEC61000-4-2 (ESD), IEC61000-4-3 (RS), IEC61000-4-4 (EFT), IEC61000-4-5 (Surge), IEC61000-4-6 (CS), IEC61000-4-8 (Magnetic Field)	
RoHS	RoHS (Pb free) compliant	
Packaging and Protection	Metal case, IP30	
Hazardous Locations	ANSI/ISA 12.12.01 (Class I, Div.2)	SE3-SW5UG-T, SE3-SW5U-1C1-T, SE3-SW5U-1T1-T, SE3-SW6U-2C1-T, SE3-SW6U-2T1-T, SE3-SW7U-2P-T, SE3-SW10UG-2P-T
	FCC, CE	All
Agency Approvals	UL 61010-1, 61010-2-201	SE3-SW5U, SE3-SW5U-T, SE3-SW8U, SE3-SW8U-T, SE3-SW5UG-T, SE3-SW8UG-T, SE3-SW7U-2P-T, SE3-SW10UG-2P-T, SE3-SW16UG-4P-T
	UL 508	SE3-SW5U-1C1-T, SE3-SW5U-1T1-T, SE3-SW6U-2C1-T, SE3-SW6U-2T1-T

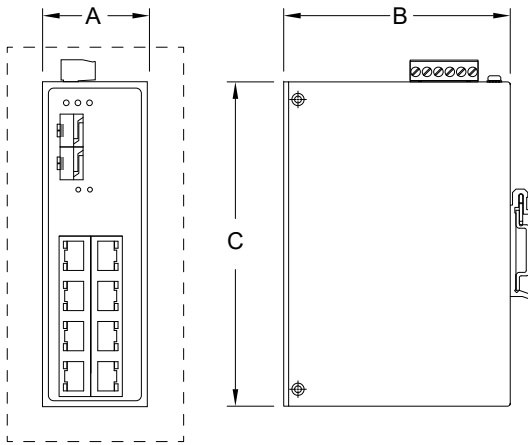
Front Panel LEDs		
LED	State	Description
PWR1/PWR2	On	Power connected and operational
	Off	No voltage
FAULT	On	Power input 1 or 2 is inactive
	Off	Power input 1 and 2 are both functional
RJ45*/SC*/SFP Port LINK/ACT	On	Indicates that there is a proper Ethernet connection (link) between the port and another Ethernet device, but no communications activity is detected.
	Blinking	Indicates that there is a proper Ethernet connection (link) between the port and another Ethernet device, and that there is communications activity.
	Off	Indicates that there is not a proper Ethernet connection (link) between the port and another Ethernet device. Make sure that each end of the cable has been plugged in securely.

\* Upper LED indicates connection at highest available speed on RJ45 ports.

SC/ST Fiber Port: (100BaseFX multimode)	
Optimal Fiber Cable	50/125 or 62.5/125 μm
Center Wavelength	1310 nm
Multimode	Transmitter power into 50/125 cable (dBm): -20 min, -14 max
	Transmitter power into 62.5/125 cable (dBm): -23.5 min, -14 max Receiver sensitivity (dBm): -32
Nominal Max. Distance	2km [1.24 mi]
Eye Safety (laser)	IEC 60825-1, Class 1; FDA 21 CFR 1040.10 and 1040.11

SE3-SW5UG-1P-T DIP Switch Settings			
DIP Switch	Description	ON	OFF
1	Energy Efficient Ethernet	Enable	Disable
2	SFP Speed	100Mbps	1Gbps

## Dimensions:



Dimensions				
Part Number	Weight kg [lb]	Width (A)	Depth (B)	Height (C)
		mm [inches]		
SE3-SW5U	0.30 [0.66]	26 [1.0]	75 [3.0]	95 [3.7]
SE3-SW5U-T				
SE3-SW8U	0.34 [0.74]	40 [1.6]	70 [2.8]	95 [3.7]
SE3-SW8U-T				
SE3-SW5UG-T	0.45 [0.99]	30 [1.2]	95 [3.7]	140 [5.5]
SE3-SW8UG-T				
SE3-SW5U-1C1-T	0.50 [1.10]	30 [1.2]	99 [3.9]	142 [5.6]
SE3-SW5U-1T1-T				
SE3-SW6U-2C1-T				
SE3-SW6U-2T1-T				
SE3-SW7U-2P-T	0.57 [1.24]	46 [1.8]	67 [2.6]	
SE3-SW5UG-1P-T	0.59 [1.30]			
SE3-SW10UG-2P-T	0.71 [1.56]			
SE3-SW16UG-4P-T	1.16 [2.57]			

## Installation:

These devices are open-type. Units rated for hazardous locations are meant to be installed in an enclosure which is only accessible with the use of a tool and suitable for the environment when installed in Class 1, Division 2 Hazardous Locations.

**WARNING:** The following information applies when operating approved models of this device in hazardous locations: Suitable for use in Class I, Division 2, Groups A, B, C and D Hazardous Locations, or nonhazardous locations only.

**WARNING: EXPLOSION HAZARD**

- Do not disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations.
- Substitution of any component may impair suitability for Class I, Division 2.

## DIN Rail Mounting:

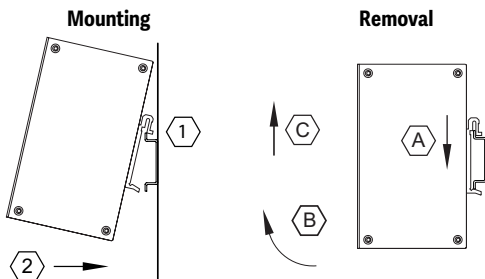
The switch can be mounted on a standard 35 x 7.5 mm height DIN rail (Standard: CENELEC EN50022) installed either vertically or horizontally.

DIN rail mounting steps:

- Hook top back of unit over the DIN rail.
- Push bottom back onto the DIN rail until it snaps into place.

DIN rail removal steps:

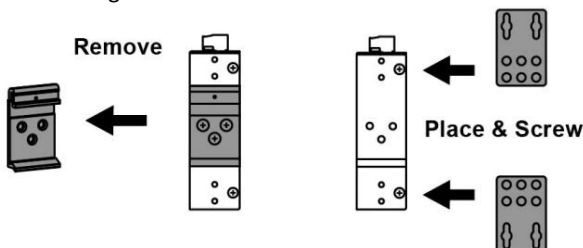
- Push the unit down to free the bottom of the DIN rail.
- Rotate the bottom of the unit away from the DIN rail.
- Unhook top of unit from DIN rail.



## Wall Mounting:

Follow the steps below to mount the switch using the wall mounting bracket. Bracket details and hole patterns differ between models.

- Remove the DIN rail bracket by loosening the screws.
- Attach the wall mounting brackets on the top and bottom of the switch.
- Locate screws in the wall based on the positions of the slotted screw holes on the mounting brackets and attach the switch to the wall.



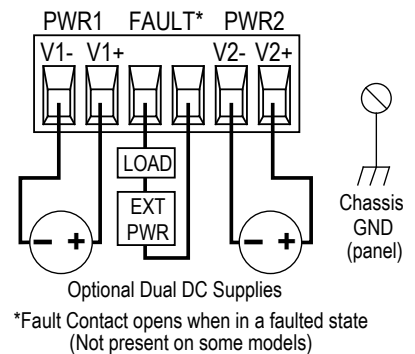
## Power Wiring:

The switch can be powered from the same DC source that is used to power your other devices. To maintain the UL listing, this source must be a Class 2 power supply. A DC voltage in the range of 12 to 48 VDC needs to be applied between the P1+ terminal and the P1- terminal as shown below. The chassis screw terminal should be tied to panel or chassis ground. To reduce down time resulting from power loss, the switch can be powered redundantly with a second power supply as shown below. A recommended DC power supply is AutomationDirect.com part number PSL-24-030.

**Required terminal screw torque is 7 lb-in (0.79 N-m).**

**Wire Size Range 20 – 18 AWG**  
**Wire Strip Length 7mm**

## Redundant DC Power



**NOTE: IF ONLY ONE POWER SUPPLY IS USED, JUMPER V1+ TO V2+ AND V1- TO V2- TO ELIMINATE POWER FAULT ALARM.**

## Communication Ports Wiring:

The switch provides connections to standard Ethernet devices such as PLCs, Ethernet I/O, industrial computers and much more. Use data-quality (not voice-quality) twisted pair cable rated Cat5e (or better) with standard RJ45 connectors. Straight-through or crossover RJ45 cable can be used for all devices which are connected to the switch, as all the ports are capable of auto-mdi/mdix-crossover detection.

The RJ45 Ethernet port connector bodies on the switch are metallic and connected to the Chassis GND terminal. Therefore, shielded cables may be used to provide further protection. Electrical isolation is also provided on the Ethernet ports for increased reliability.

## Additional Help and Support

- For additional product support, specifications, and installation, download User Manual SE3-USER-M from the Product Manuals area of [www.AutomationDirect.com](http://www.AutomationDirect.com).
- For additional technical support and questions, call our Technical Support team @ 770-844-4200.

